

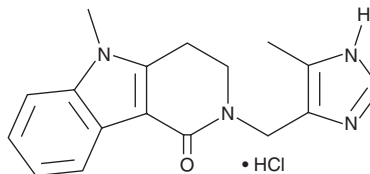
PRODUCT INFORMATION



Alosetron (hydrochloride)

Item No. 22434

CAS Registry No.: 122852-69-1
Formal Name: 2,3,4,5-tetrahydro-5-methyl-2-[(4-methyl-1H-imidazol-5-yl)methyl]-1H-pyrido[4,3-b]indol-1-one, monohydrochloride
Synonym: GR 68755
MF: C₁₇H₁₈N₄O • HCl
FW: 330.8
Purity: ≥98%
UV/Vis.: λ_{max}: 218, 259, 294 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Alosetron (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the alosetron (hydrochloride) in the solvent of choice. Alosetron (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of alosetron (hydrochloride) in these solvents is approximately 0.5, 20, and 10 mg/ml, respectively.

Alosetron (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, alosetron (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Alosetron (hydrochloride) has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Alosetron is an antagonist of the serotonin (5-HT) receptor subtype 5-HT₃ (K_is = 0.3 and 0.4 nM for the rat cortical and human recombinant receptors, respectively).¹ It is selective for 5-HT₃ over 5-HT₂ and 5-HT_{1A} receptors (K_is = 6.3 and >100 μM, respectively), as well as α₁-, β₁-, and β₂-adrenergic, M₁, M₂, and M₃ muscarinic, GABA_A, dopamine D₂, and nicotinic receptors at 10 μM.² Alosetron (0.3-10 nM) inhibits 5-HT-induced depolarization of isolated rat vagus nerve.¹ It reduces wrap restraint stress-induced defecation and the number of abdominal muscle contractions in a rat model of irritable bowel syndrome with diarrhea (IBS-D) when administered at a dose of 0.1 mg/kg.³ Formulations containing alosetron have been used in the treatment of diarrhea-predominant irritable bowel syndrome in women.

References

1. Humphrey, P.P., Bountra, C., Clayton, N., et al. *Ailment Pharmacol. Ther.* **13(Suppl 2)**, 31-38 (1999).
2. Kilpatrick, G.J., Hagan, R.M., Butler, A., et al. *Glaxo Grp. Res. Ltd.*, 259P (1991).
3. Taquichi, R., Shilkata, K., Furuya, Y., et al. *Psychoneuroendocrinology* **75**, 110-115 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM